Application No. 09/939,674
Amdt. Dated August 21, 2003
Reply to Office Action of June 11, 2003
Docket No. 8038-1021

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A thermo-sensitive infrared ray detector comprising a substrate, first and second sections formed on said substrate and including first and second thermo-sensitive resistors, respectively, said first and second thermo-sensitive resistors having similar dimensions and thermally isolated from one another and from said substrate, and a shield member for shielding said second thermo-sensitive resistor against [[an]] infrared [[ray]] rays,

wherein said shield member includes both an infrared ray reflector film and an infrared ray absorbing member.

Claim 2 (original): The thermo-sensitive infrared ray detector as defined in claim 1, further comprising a read circuit for reading a difference signal representing a difference between output signals read from said first and second thermo-sensitive resistors.

Claim 3 (original): The thermo-sensitive infrared ray detector as defined in claim 2, wherein read circuit supplies a bias current to each of said first and second thermo-sensitive resistors, and cancels self-heating signal components caused by

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said bias current in outputs from said first and second thermosensitive resistors.

Claim 4 (canceled).

Claim 5 (currently amended): The thermo-sensitive infrared ray detector as defined in claim [[4]] 1, wherein said infrared ray reflector film includes Al, Ti, W or silicide of one of these materials.

claim 6 (currently amended): The thermo-sensitive infrared ray detector as defined in claim 4, A thermo-sensitive infrared ray detector comprising a substrate, first and second sections formed on said substrate and including first and second thermo-sensitive resistors, respectively, said first and second thermo-sensitive resistors having similar dimensions and thermally isolated from one another and from said substrate, and a shield member for shielding said second thermo-sensitive resistor against infrared rays,

wherein <u>said shield member includes an</u> [[said]] infrared ray absorbing member <u>that</u> overhangs said second thermo-sensitive resistor[[,]] and is thermally coupled to said first thermo-sensitive resistor.

Claim 7 (currently amended): The thermo-sensitive infrared ray detector as defined in claim [[4]] 1, wherein said infrared ray absorbing member includes at least one of silicon nitride film, silicon oxide film, silicon carbide film and silicon oxy-nitride film.

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Claim 8 (currently amended): The thermo-sensitive infrared ray detector as defined in claim [[4]] $\underline{1}$, wherein said infrared absorbing member includes a thermo-sensitive resistor or a metallic film.

Claim 9 (original): The thermo-sensitive infrared ray detector as defined in claim 1, wherein a difference in a heat capacity between said first section and said second section is within 10%.

Claim 10 (original): The thermo-sensitive infrared ray detector as defined in claim 1, wherein said first and second sections forms a pixel, and a plurality of said pixels are arranged in an array on said substrate.

Claim 11 (currently amended): The thermo-sensitive infrared ray detector as defined in claim [[10]] $\underline{1}$, wherein said infrared ray absorbing member overhangs said second thermosensitive resistor, and is thermally coupled to said first thermo-sensitive resistor.

Claim 12 (currently amended): The thermo-sensitive infrared ray detector as defined in claim [[10]] 11, wherein a pair of said infrared ray absorbing members extending from adjacent first thermo-sensitive resistors overhang said second thermo-sensitive resistor disposed therebetween.